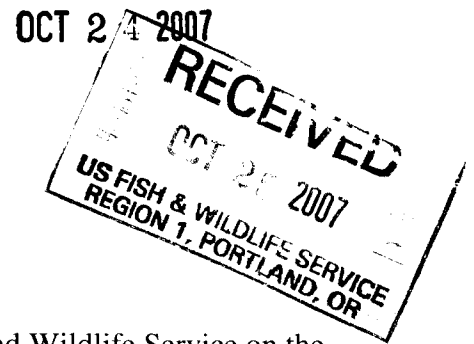




File Code: 2670

Date:

Mr. Paul Phifer
NSO Recovery Plan
U.S. Fish and Wildlife Service
Ecological Services
911 NE 11th Avenue
Portland, OR 97232



Dear Mr. Phifer:

Thank you for the opportunity to provide comments to the U.S. Fish and Wildlife Service on the 2007 Draft Recovery Plan for the Northern Spotted Owl (Federal Register, Vol. 72, No. 80 Wednesday, April 26, 2007; Federal Register, Vol. 72, No. 114, July 14, 2007). The U.S. Forest Service's general comments are provided below, and specific comments are included in the Appendix to this letter.

General Comments

Options 1 and 2

We concluded that each option has strengths and shortcomings. Generally, Option 1 provides the broad range-wide perspective needed for a recovery plan, but does not provide an opportunity for forest input on final Managed Owl Conservation Area (MOCA) locations and boundaries. While five percent flexibility is given for boundary changes, in some cases this is not sufficient because large portions of MOCAs were burned in recent fires or owls have moved to entirely different areas (i.e., outside of Late Successional Reserves (LSR)). Conversely, while Option 2 provides greater flexibility in the placement of habitat blocks and boundaries, it does not address how this landscape-level rule set could be applied without additional and extensive coordination between agencies and landowners.

The Forest Service prefers Option 2 because of its flexibility, although we believe both options require changes and clarification before either could be fully supported for implementation.

Option 1

Generally, our national forests liked that a range-wide map of conservation areas (i.e., MOCAs) was already provided in this option. From a Land and Resource Management Plan (LRMP) standpoint, forests also appreciated that MOCAs are, for the most part, mapped entirely within existing reserved land allocations (e.g., Wilderness, Late Successional Reserves). Generally, forests west of the Cascades felt Option 1 provided sufficient flexibility to modify the MOCAs and Conservation Support Areas (CSA) based on local, site-specific information. Generally, forests east of the Cascades and in fire-prone provinces wanted more flexibility and/or increased input on setting MOCA boundaries. One forest suggested that flexibility be increased as needed and not be driven by a set percentage of change. Many forests, both east and west, provided information on specific



MOCA boundary changes that are needed. These suggested changes are available on request.

Option 2

Many Forests appreciated the flexibility this approach provides. However, the coordination process needed to produce maps under Option 2 could be time consuming, and costly. The challenge for the land management agencies will be to implement a consistent approach for the establishment and tracking of habitat blocks and CSAs within and between provinces and among agencies. This critical need for detailed coordination could lead to substantial additional costs which have not been documented in the cost analysis displayed for Option 2. The time required to identify the habitat blocks in Option 2 could be significant. The habitat blocks associated with Option 2 would be delineated according to LRMP Revision schedules, resulting in forests working on the effort at different time intervals and likely leading to coordination difficulties. This potential has not been addressed in the implementation schedule for Option 2.

Barred Owl

The barred owl represents a threat to the northern spotted owl not fully realized at the time the Northwest Forest Plan (NFP) was crafted, and it was not considered a significant threat during the federal listing of the species. While it is a considerable and growing threat, much remains to be learned about the interactions between barred and spotted owls. Thus, an emphasis on research to better understand these interactions is warranted and recommended. Without additional information, it is not yet possible to know whether barred owl removal is appropriate or if it would be effective. Prompt attention is essential. It is still appropriate, however, to have habitat enhancement and retention of suitable habitat as a high priority because of habitat's ability to both drive and mitigate the species' response to other threats on the landscape.

The U.S. Fish and Wildlife Service is the primary agent to implement any strategy for the removal of barred owls, including all associated costs. The Forest Service's primary role is in restoring and protecting habitat for the northern spotted owl.

Use of Silviculture to Restore Owl Habitat

Throughout the document are statements (e.g., middle paragraph on page 60 and Recovery Actions 23 and 24) that recommend or suggest that silvicultural techniques and practices are to be used to "...restore owl habitat and accelerate habitat development." The Forest Service fully supports this statement, and encourages greater emphasis on evaluating the hypothesis that silvicultural techniques can successfully restore and accelerate the development of owl habitat. This idea has ramifications that extend past the Recovery Plan and tie into the LRMPs.

Currently, there are thousands of acres undergoing thinning in managed plantations that are designed to achieve this objective. However, there are no specific Recovery Actions in this Draft that focus research and monitoring on areas that have been clear cut, thinned, and are now entering the mature stage (e.g., around 80 years old) to evaluate whether or not spotted owls are setting up territories in these stands.

Fire Risk

The Recovery Plan fails to adequately address the significant threat of loss of habitat to wildfire. Wildfire has accounted for more habitat loss (3.03 percent) in the last 10 years than timber harvest (2.11 percent) (Lint 2005).

The estimated habitat loss from fires that the Recovery Team may have based their recommendations on, as presented in Table C-3 in Courtney et al. (2004), appears to be a substantial underestimation of actual habitat loss. Estimates for the East Cascades Province are more on the order of 35,000 acres. This is the single most significant factor that has contributed to the loss of spotted owl habitat in the East Cascades Province (Davis and Lint 2005).

The Recovery Team has made an attempt to address the role of fire in the loss of suitable spotted owl habitat, but more needs to be done to adequately address this significant threat. Habitat goals for each province are broad and not stratified by forest type and fire regime and thus expectations are likely too high for areas such as the dry forests of eastern Washington and Oregon and the Oregon Klamath. Adequate mechanisms for dealing with wildfire are not currently in Forest Plans, as is suggested in Recovery Action 25. More detail on how fire could be better integrated with spotted owl habitat needs is needed in the Recovery Plan. Some of this information is already available and could be provided in concept in the Recovery Plan (Gaines et al. 1997, Lehmkuhl et al. 2007). Simply stating that existing plans will be followed only perpetuates existing conflicts in preparing and implementing needed fuels projects. The Recovery Plan needs to more specifically suggest objectives and desired habitat outcomes in managing vegetation.

There is a cumulative effect of having smaller habitat areas (habitat blocks vs. LSRs) and higher habitat expectations (Recovery Plan Criterion 4, 60 percent for Eastern Washington Cascades) on the Forest Service's ability to address fire and habitat sustainability in spotted owl habitat. Research conducted by Singleton et al. (2005) indicates that barred owls are pushing spotted owls into drier forests, where spotted owls may best be able to maintain viable activity centers. Thus, if we designate habitat blocks that address barred owls we end up with a high proportion of spotted owl habitat areas composed of dry forests. Add to this the Recovery Plan criterion of maintaining 60 percent spotted owl habitat in these areas when our Late Successional Reserve Assessment (LSRA) goal is 40 percent (and many of our dry forest owl activity centers can barely sustain this) the result is less flexibility to address fire and habitat sustainability issues than we have under the existing LRMPs. As summarized by Davis and Lint (2005) "...there were catastrophic wildfire events that changed owl habitat in local areas in several provinces, but the analysis of the loss at the province and range-wide scales showed the strength of the Plan's [LSRs and MLSAs under the NFP] repetitive, reserve-block design to absorb these losses." Given recent fire activity in the eastern Cascades, the Recovery Team should carefully consider if a smaller habitat block network placed in drier habitat would have the same capacity to absorb habitat loss due to fire as seen under the NFP design.

Our knowledge of spotted owls and their use of habitat in fire-prone provinces have progressed markedly in the last 10-15 years. Yet the Recovery Plan seems to be silent on many aspects of

eastside owl habitats and fire. We urge the Recovery Team to revisit fire issues to better leverage the knowledge of scientists specializing in fire ecology and spotted owl biology and recovery needs. The Recovery Team should specifically analyze vegetation management within MOCAs, and identify ways to create more defensible, fire resilient forest conditions on the land between MOCAs.

Economics

The Forest Service is concerned that the totals placed within the Economic Analysis for both options are too low for Recovery Plan implementation. Some specific concerns are the costs for habitat inventory, improving or restoring habitat for the northern spotted owl, and utilization of 5 percent or the total project cost specific to northern spotted owls. More detailed comments are found in the Appendix.

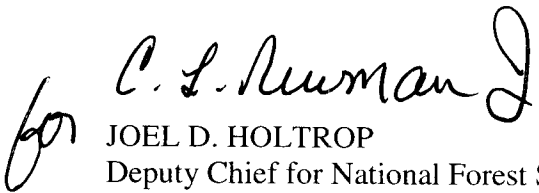
Inter-Organizational Spotted Owl Working Group

A spotted owl working group can benefit northern spotted owl recovery by helping to prioritize and direct how limited funding should be used and where action should occur. The Interagency Grizzly Bear Committee (IGBC) provides a good working model for such a group. An important task for this group could be to assist land management agencies in the development of a consistent approach for mapping habitat blocks across the entire range of the owl (see comments under Option 2). We do not support formation of a spotted owl working group that will approve or evaluate proposed implementation of projects by a management agency. We are satisfied with the use of interagency Level 1 and Level 2 teams for project review and Section 7 consultation.

Specific comments on the Recovery Plan are included in the Appendix to this letter.

We appreciate the opportunity to provide comments on the Draft Recovery Plan and strongly support Option 2. If requested, we can provide maps (shape files) of suggested MOCA boundary changes. If you have questions, please contact Marc Bosch, National Endangered Species Program Leader, at 202-205-1220.

Sincerely,

for C. L. Neuman J

JOEL D. HOLTROP
Deputy Chief for National Forest System

Enclosure

Appendix to U.S. Forest Service Letter to FWS
Specific Comments
On the Draft Northern Spotted Owl Recovery Plan

Page 18, Second Sentence, Second Paragraph. The southern half of the Western Oregon Cascades has been shown to be prone to large stand-replacement wildfires (see pages 62-63 in Davis and Lint 2005) and should be included in the list of “fire prone provinces.” Please correct this. This paragraph seems to be contradicted by Recovery Action 25 on page 38.

Page 19, Flexibility. Option 1 of the Recovery Plan provides a limited avenue for managers to make adjustments to the MOCA boundaries. This “flexibility” is limited to no more than a 5 percent loss of habitat capable acres. This is problematic given that the Draft Recovery Plan acknowledges that the MOCA boundaries were not carefully delineated (Page 19) and may need adjustments to coincide with recognizable physiographic features, e.g., major ridge lines, perennial streams, and permanent roads. As an example, review of the delineated boundaries for the MOCA’s on the Six Rivers National Forest, indicates needed adjustments are significantly greater than 5%.

Pages 31 and 47, Recovery Criteria 2. The Recovery Plan does not fully describe why the Western Washington Lowland, Willamette Valley, and California Cascades are being excluded from Recovery Criteria 2.

Pages 31 and 47, Recovery Criteria 3, Recovery Action 14. This Action encourages the use of volunteers to conduct spotted owl surveys. While this idea has merit, volunteers should only be used if:

1. Volunteers are fully trained in how to survey, detect, and positively identify spotted owls.
2. Volunteers must fully understand that spotted owl location information is sensitive data and agree to maintain high ethical standards about the use and confidentiality of this information.

Page 31, Recovery Criterion 3. Recovery Criterion #3 states that “in each State at least 80 percent of large habitat blocks contain at least 15 occupied spotted owl sites”. The concern here is that the Forest Service would be required to monitor “occupied sites” and evaluate the status of such for projects. As a land management agency, our focus should not be on the number of pairs which are occupying the site, but rather on the habitat needed to support recovery goals (creating/protecting/managing habitat that would be available for occupancy). We are concerned and do not support the possible implied requirements to monitor each owl pair, versus focusing on managing the habitat needed to support the goals of the plan.

Pages 32 and 48, Recovery Criteria 4. What the numbers are based upon in this criterion is unclear. The explanation about the use of BioMapper is also unclear and somewhat confusing. These numbers would be most meaningful if they were stratified by broad forest-type and fire regime.

On the Mount Baker-Snoqualmie (MBS) National Forest, MOCA percentages may not be attainable in some areas of the Forest. It appears the habitat modeling with BioMapper may have overestimated the acres capable of supporting owls, particularly in higher elevations. The Recovery Plan identifies areas of silver-fir and mountain hemlock vegetation zones on the MBS as capable. However, we believe these vegetation zones to be incapable of supporting owls.

This overestimate of capable acres for the MBS is of high concern because this MOCA 1's may never be able to actually support 20 or more breeding pairs of owls. The inclusion of high elevation vegetation zones also impacts the amount of owls a MOCA 2 could realistically support. Recovery Action 21 could never achieve Recovery Criterion 4, regarding the province goal of 70% suitable habitat in 80% of the MOCA's, if capable acres have been overestimated. We suggest some of the assumptions in the habitat modeling be revisited and that MOCA boundary adjustments be considered.

The Deschutes (DES) National Forest in the Eastern Oregon Cascades has also commented that the percentages of habitat listed in this criterion are too high, but for a different reason. These percentages are too high for a frequent disturbance prone area to sustain over time. This level sets the landscape up for a boom/bust cycle with insects and disease and/or wildfire and does not allow for habitat cycling. Eastside disturbance regimes are different from Westside disturbance regimes in that fire is more frequent, has a higher tendency to be mixed and fewer stand replacement events occurred historically. The result of this type of disturbance regime is less contiguous habitat (patchy habitats) at any one point in time. Currently, the Forest is working to restore and maintain these intermediate disturbance regimes on the landscape. Spatial discontinuity of habitat will support greater habitat sustainability over time. If these disturbance regimes cannot be maintained, the result may be a greater loss of habitat resulting in larger gaps in time when this landscape can contribute to providing suitable habitat. The recent large uncharacteristic wildfires occurring on the Sisters Ranger District over the past 5 years provide a good example.

Currently, most of Late-Successional Reserves on the DES are not able to produce 60% suitable habitat. In addition, even prior to recent wildfires, most of the known activity centers did not contain 40% suitable habitat. The Eastern Oregon Cascades province appears to be more similar to the Klamath province than the Eastern Washington Cascades province. We request the Recovery Team consider a reduction in the Eastern Oregon Cascades percentage of habitat to 50%.

The Rogue River-Siskiyou National Forest conducted a comparative analysis of existing habitat within the Option 1 MOCAs located on the Forest. Their analysis, using the Interagency Vegetation Mapping Project dataset, adjusted for recent timber sales and fires, found that the Recovery Plan over-estimated current suitable habitat within some

MOCAs on the Forest by as much as 12 percent and under-estimated current habitat in some MOCAs by as much as 30 percent. Some of the highest over-estimates occurred within MOCAs that were located in the Biscuit Fire and Blossom Fire areas. The highest under-estimates occurred in the West Cascades Province. This may be problematic since the Plan outlines expectations and habitat guidelines for some MOCAs that may not be realistic, given current habitat conditions. Conversely, other MOCAs could be providing much more habitat and support to spotted owls than currently recognized in the Recovery Plan. The Forest believes, given the existing geology, local plant associations, and fire regimes found within the Oregon Klamath Province, it is unlikely that some MOCAs in this province (MOCAs 22,23,and 25 for instance) would ever reach or could sustain the desired condition of 50 percent suitable habitat as stated in the Recovery Plan.

The Recovery Team specifically requested review from Franklin, Dugger and Olsen on this issue and should carefully review any comments received.

Pages 34 and 51, Spotted Owl Habitat. The definition developed by Davis and Lint (2005) was at the Province level and does not recognize specific eastside geographical and environmental factors that limit tree species composition, growth, and density to produce suitable spotted owl habitat conditions. For example, under the Recovery Plan definition open old growth ponderosa pine stands would be considered capable of producing suitable spotted owl habitat. They are not. The DES has a lot of area capable of producing forests but not all forests are capable of producing suitable spotted owl habitat (e.g. lodgepole pine dominated stands, dry mixed conifer, etc.). In addition, this definition does not take into account the patchy nature of habitat occurring on the Forest.

More information is needed on eastside habitat relationships. The DES is in the early stages of determining habitat relationships using site specific information collected at spotted owl nest sites. The Forest would like the opportunity to complete this analysis and be able to utilize the information gained to refine their definition of habitat for use in eastside areas or have the ability to work with the team to refine parameters used to map habitat in this province.

Pages 36, Spotted Owl Habitat. The Recovery Plan states “Given the current state of knowledge, it is not recommended that management occur to reduce the amount or quality of nesting habitat in MOCAs.” Given the state of the proposed MOCAs in the Eastern Oregon Cascades province, management of some nesting habitat may be necessary to ensure large trees are available to provide nesting habitat in the future. This same statement seems to conflict with Recovery Action 25 and does not allow for cycling of habitat or risk reduction activities. On the DES the focus is on the development and maintenance of large trees (since these take the longest time frame to achieve and are the most limiting factor) and then development of the understory as conditions allow. This affords flexibility in managing for habitat in appropriate plant associations while reducing risk to habitat across the landscape.

In addition, the MBS suggests this statement be changed to more clearly allow for small habitat reductions for road realignments after flood events, bridge reconstruction, etc. This comment also applies to Recovery Action 26 on pages 39 and 54.

Pages 37 and 52, Recovery Action 21. A map would be helpful that identified the parts of the owl range where the species diet is composed of northern flying squirrel vs. where wood rats are the primary prey items.

Pages 38 and 53, Recovery Action 22. Salvage criteria should be stratified by forest type and fire regime. Salvage in dry forests may be more appropriate than other forest types if it is designed to reduce fuels and future fire intensities.

Page 38, Recovery Actions 23 and 24. The difference between these two actions is unclear; they seem very similar. Guidelines from applicable Land Resource Management Plans (LRMP) and Late Successional Reserve Assessments (LSRA) allow treatment of 80 year-old stands on the eastside for risk reduction purposes. This may cause confusion with the definition of suitable habitat (stands >80 years old). Eighty year-old stands on the eastside typically do not have the structure to provide nesting habitat and structure. Nesting habitat takes longer to develop on the east side than the west side. Stand age does not seem like a good metric to use and we would recommend some type of structure metric. These actions may be in conflict with Recovery Action 25.

Page 38, Recovery Action 25. MOCA #22 is cited as a fire-prone area in the Western Oregon Cascades on this page and elsewhere, while the Appendix B maps (page 120) show it in the Klamath Province. Is the reference to MOCA #22 supposed to be MOCA #18 instead?

Moreover, thirty years of wildfire history indicate that *all* MOCAS in the south half of the Western Oregon Cascades Province are at risk of large stand-replacement wildfires. The Umpqua National Forest (UMP) alone has experienced several large (>10,000 acre) fires over the last decade (see pages 62-63 in Davis and Lint 2005).

Pages 38 and 54, Recovery Action 25. This action directs land management agencies to “manage stands in accordance with the appropriate LRMP standards and guidelines to reduce the risk of fire that causes habitat loss within MOCAs.” Existing Forest Plans do not address this. It would be much more useful to define a process, perhaps at the Provincial level, for how to integrate fuels reduction objectives with spotted owl habitat objectives. The “limit use of shaded fuel breaks” statement seems out of place in a broad-scale, strategic document such as a recovery plan. These are tactical tools best decided at the site level.

Page 39, Recovery Action 26. The statement as is provides no flexibility to achieve actions listed in Recovery Action 25 (specifically, shaded fuel breaks). Please incorporate some flexibility here.

Pages 40 and 55, Outside of MOCAs and Habitat Blocks. An important monitoring/research objective should be addressed, especially in fire-prone provinces, for evaluating: 1) the effectiveness of fuels reduction treatments to reduce stand and landscape level risks to spotted owl habitat (see Lehmkuhl et al. 2007); and 2) the effects

of these treatments on spotted owl habitat use, spotted owl prey base (Lehmkuhl et al. 2006a, b) and interactions between spotted owls and barred owls. An experimental approach would be best; involving radio-telemetry of both barred and spotted owls in areas where fuels treatments could be implemented.

Pages 40 and 55, Recovery Action 34. This recovery action is confusing. It seems to contradict itself, as the bolded sentence states that lands outside of MOCAS need to be managed to support dispersal (immediate thoughts go to the “50-11-40” rule), yet the following sentence states that “No special management objectives are necessary...”. Please clarify.

Page 53, Option 2 Recovery Action 24. This Action differs from Recovery Action 24 in Option 1. Please clarify.

Page 53, Option 2 Recovery Action 25. This Action differs from Recovery Action 25 in Option 1. Please clarify.

Page 54, Option 2 Recovery Action 26. This Action differs from Recovery Action 26 in Option 1. Please clarify.

Page 64, Rule Set to Guide the Designation of Habitat Blocks. We have two comments regarding the mapping criteria: 1). While these criteria give the illusion of additional flexibility, when applied (especially in northern Washington), there are very limited options in terms of identifying the large MOCAs. There are really only a few areas where the habitat is expansive enough and the known owl sites numerous enough to provide for the recommended owl pairs. The limited options for the large MOCAs places limited options for the smaller MOCAs due to the other mapping criteria that address spacing and distribution. Thus the idea of providing additional flexibility may not actually be realized, making two options redundant; 2). The application of the mapping criteria needs to occur at a range-wide scale in order to be certain that the criteria are met across Forest/Provincial boundaries. Applying these criteria on a Forest/Province by Forest/Province could make it difficult to follow the principles of conservation biology because adequate habitat amount, distribution, and redundancy should be considered at the range-wide scale.

Page 65, Rule A. 2). Both options allow biologically large variability in the number of nests to be protected in the MOCA 2s and small habitat blocks (1-19). To have the lower limit of one nest as a viable option for a recovery plan does not appear biologically tenable.

Page 66, Rule sets 5 & 6. Both of these rules required several re-readings and are still confusing. Please clarify.

Pages 72 and 84 (from Region 5). A key concern is the ability for the Forest Service to maintain current costs of demography studies and non-project specific surveys in a time of declining budgets. There are many other actions requesting the Forest Service provide

funding to surveying, evaluating, and increased monitoring efforts. Currently, the Forest Service is in budget declines of approximately 10% per year, which would prohibit increased costs.

The Recovery Plan it states (p 84) that only 5% of the total cost of a fuels reduction project would be attributed to spotted owls. At present and proposed for the near future we have projects specific to protecting spotted owls by reducing the risk of a detrimental wildfire to known occupied spotted owl areas. Hence, 5% is too low of a calculation. The focus of restoration projects within the Northwest Forest Plan is creation of late successional forests with key attributes for northern spotted owls. Again, the cost of 5% of the project attributed to northern spotted owls is too low.

Habitat inventories to determine if Recovery Criteria have been met have a 30 year cost of \$180,000. The key assumption is that aerial photographs and mapping will not be conducted specific to the analysis. Planned rotation of maps within current Forest Service allocation is set for every 10 years at a cost for 2008 of \$400,000 for California alone.

The action to manage habitat capable acres in both categories of habitat blocks at every level that meet or exceed Recovery Criterion 4 percentages is allocated a \$400,000 budget per year for BLM, FS, and NPS. This number would only work if we are allocating only 5% of the total project cost to spotted owls. If we realistically look at project proponents for funding with knowing the 5% cost is too low, then \$400,000 per year is too low.

The above is true for the action of "Identify and restore (by silviculture and time) the habitat capable acres in the habitat blocks that are not currently in the desired habitat condition to support owl pairs" at a cost of \$400,000 per year for BLM, FS, and NPS.

The same condition above applies to the two following actions of "In the habitat blocks, implement the applicable silviculture principles/guidelines from applicable LRMPS to accelerate development of spotted owl habitat to achieve Recovery Criteria 1" and "Within habitat blocks in the fire-prone portions of the Western Oregon Cascades, Eastern Cascade provinces of Washington and Oregon, and Klamath provinces of Oregon and California, and California Cascades, manage stands in accordance with the appropriate LRMP standards and guidelines to reduce the risk of fire that causes habitat loss within habitat blocks." Both were allocated \$400,000 per year for BLM, FS, and NPS per action. Considering both requests are directly related to spotted owl, the costs for the project would be at least 90% attributed to the spotted owl, hence the cost are too low to implement. The same is true for action "manage Federal forest-capable landscapes outside of habitat blocks to support spotted owl dispersal among habitat blocks" for \$64,000 per year for BLM and FS.

The action to "maintain all the existing nesting-quality stands within habitat blocks in the Western provinces or non fire prone provinces" is not achievable with a cost of \$0.

Many of the existing nesting quality stands will be needed stand improvement such as thinning over the 30 year life of the recovery plan.

Recovery criterion #3 states that “in each State at least 80 percent of large habitat blocks contain at least 15 occupied spotted owl sites”. Our concern is that we would be required to monitor “occupied sites” and evaluate the status of such for projects. As a land management agency, our focus should not be on the number of pairs which are occupying the site, but rather on the habitat needed to support recovery goals (creating/protecting/managing habitat that would be available for occupancy). We are concerned about the possible requirements to monitor each owl pair, versus being able to focus on managing the habitat needed to support the goals of the plan. Even though it is stated that Recovery Plans are guidelines to recovery and not considered regulatory documents, eventually a judge may interpret the numbers used to be legally binding.

The draft Recovery Plan designates spotted owl pair capability as per MOCA Category 1 & 2. We are extremely concerned that this capability will be viewed as a threshold and simply require the Forests to initiate surveys and monitoring on a large scale to conduct management activities within MOCAs. In addition, to meet the recovery objectives and meet one of the thresholds for “recovery,” we must meet the owl pair thresholds essentially for each individual MOCA. This would require us to validate by surveying/monitoring all of the delineated MOCAs within the NFP to simply meet one of the “Recovery” objectives. This simply places the Forests in a position that they could never financially support or achieve.

Page 119, Maps of MOCAs. Boundary changes are needed for MOCAs on the Olympic National Forest which would reflect current or historic occupancy by spotted owls and are within the LSR network. Shape files, with these suggested boundary adjustments, and are available upon request.

Page 120, Appendix B Map of MOCAs. The DES has 7 identified MOCAs. Six of the seven have had some portion burned by wildfire in the past 5 years. In addition, high levels of mortality are present in portions of some due to insects and disease. Many of these are dominated by plant associations not capable of producing or sustaining suitable habitat conditions.

MOCA #	Geographic Location	Estimated % of MOCA burned by wildfire in past 5 years	General Comments
46	Horn of Metolius	50%	Primarily Mixed Conifer Dry dominated by ponderosa pine.
47	Abbot Creek	90%	Burned in B&B fire.
48	Metolius	95%	Burned in B&B fire.
49	Cache	40%	Dominated by ponderosa pine/mixed conifer dry. High mortality due to spruce

			budworm. Several fires occurring in north.
50	Trout/Squaw	10%	Black Crater fire (2006). Some mortality. Dominated by mixed conifer dry.
51	Cultus	1%	Very high mortality.
52	Davis	35%	Davis fire (2003). Mix of plant associations.

Many of the MOCAs recommended for the DES do not seem to fit the objective of managing for recovery either due to the time it would take these areas to provide habitat again or due to the plant associations found within them. It also seems that part of MOCA 50 occurs within the wilderness and is located above the elevation limit known for owls. About half of the remaining owl activity centers and associated suitable habitat on the DES occur outside recommended MOCA1 boundaries at this time and will not count toward recovery.

Page 121, Appendix B:

Region 5 has maps (shape files) that could be provided upon request that would assist in delineating the MOCAs to topological features. In addition, we have an updated shape file for the newly designated Wilderness Areas (PL 109-362, October 17, 2006) that will aid in identifying Wilderness Areas within Forest Service and Bureau of Land Management Lands in California.

We request removal of the following 5 areas proposed in Option 1 on Forest Service lands on the Klamath and Shasta-Trinity National Forests. They do not meet the definition of suitable northern spotted owl habitat for the following reasons: lack of habitat; vegetation consists of high elevation fir, open valleys, and early successional stands due to disturbance by fire; mapped suitable owl habitat acres incorrectly defined the area as having higher suitability than exists; and the size of each area is not considered adequate for a pair of northern spotted owls as defined in the draft Recovery Plan. The 5 areas are described below:

- 1) Eastern Snowfields of Mt. Shasta - T41N, R2W, Sec. 4, 8, 10, 16, 18, and 20. 3,034 acres in the Shasta-Trinity National Forest (Siskiyou County). This is also MOCA #65 in the Draft Northern Spotted Owl Recovery Plan.
- 2) Antelope Creek Headwaters Area - T42N, R1W, Sec. 9, 10, 11, 12, 13, 14, and 16. 2,955 acres in the Klamath National Forest Goosenest Adaptive Management Area (AMA) (Siskiyou County). This is also MOCA #66 in the Draft Northern Spotted Owl Recovery Plan.
- 3) West of Medicine Lake – T43N, R2E, Sec. 1, 2, 3, 11, and 12; T44N, R2E, Sec. 35 and 36. 1,751 acres in Klamath National Forest Goosenest AMA (Siskiyou County). This is also MOCA #67 in the Draft Northern Spotted Owl Recovery Plan.
- 4) Fons Butte Area - T41N, R1W, Sec. 4, 8, 17, and 18. 1,453 acres in the Shasta-Trinity National Forest (Siskiyou County). This is listed as MOCA #68 in the Draft Northern Spotted Owl Recovery Plan.

5) Harris Mountain - T42N, R2E, Sec. 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, and 33. 2,240 acres in the Shasta-Trinity National Forest (Siskiyou County). This is listed as MOCA #69 in the Draft Northern Spotted Owl Recovery Plan.

We request removal of the following area since they do not meet the definition of suitable northern spotted owl habitat for the following reasons: have less than 50% large tree components and are not considered viable for northern spotted owls within the next 50 years.

1) Trinity Alps Wilderness Area and the Trinity River. T39N, R7W, Sec. 26, 30, and 36 and T38N, R7W, Sec. 2 and 12. 2,656 acres of the Shasta-Trinity National Forest (Trinity County). This is listed as MOCA #41 in the Draft Northern Spotted Owl Recovery Plan.

2) Trinity Alps Wilderness Area and the Trinity River. T39N T38N, R7W, Sec. 8, 16, 18, 20, and 30 and T38N, R8W, Sec. 24, 25, and 36. 3,881 acres of the Shasta-Trinity National Forest (Trinity County). This is listed as MOCA #42 in the Draft Northern Spotted Owl Recovery Plan.

3) Trinity Alps Wilderness Area and the Trinity River. T39N T37N, R7W, Sec. 7, 8, 16, 17, 19, 20, 21, 28, 29, and 30 and T37N, R8W, Sec. 10, 12, 14, 16, 22, 24, and 26. 7,304 acres of the Shasta-Trinity National Forest (Trinity County). This is listed as MOCA #43 in the Draft Northern Spotted Owl Recovery Plan.

An additional site we recommend for removal is the area called MOCA #76 in the Draft Northern Spotted Owl Recovery Plan. This area can further be clarified as: T36N, R3W, Sec. 6; T36N, R4W, Sec. 1, 2, 3, and 4; T37N, R3W, Sec. 17, 18, 19, 20, 21, 30, and 31; and T37N, R4W, Sec. 30, 32, 34, 35, and 36). Over 50% of this area has been impacted by large fire activities and timber harvesting thus it is not providing sufficient primary constituent elements to support northern spotted owl life processes in the next 30-120 years.

We recommend removal of the area called MOCA #78 in the Draft Northern Spotted Owl Recovery Plan. This area is located at: T36N, R1E, Sec. 1, 2, 3, 4, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, and 35; T36N, R2E, Sec. 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, and 30; T37N, R1E, Sec. 24, 25, 34, 35, and 36; and T37N, R2E, Sec. 18, 19, 30, 31, and 32. The boundary line between the Northern and California subspecies of Spotted Owls is delineated as the Pit River. A large portion of this MOCA was placed south of the Pit River, which would be designated as California Spotted Owl area. The total area has less than 50% habitat, no spotted owls have been found in the area in recent years, and bald eagles have expanded into this area which exhibit priority of use of the area around Shasta Lake.

We request that the area called MOCA #58 (T19N, R10W, Sec. 1, 2, 3, 11, 12, 13, 14, 23, 24, and 25; T19N R9W, Sec. 3, 4, 5, 8, 9, 10, 15, 16, 17, 20, 21, 22, 27, 28, and 29; T20N, R9W, Sec. 27, 28, 29, 32, 33, and 34; and T20N, R10W, Sec. 25, 35, and 36) be removed. This area has 16,000 acres that burned in a 1987 fire. MOCA #58 will not provide the primary constituent elements to support northern spotted owl life process for an additional 50-120 years at minimum.

Pages 122 thru 124, Appendix B. Although this map is only an example of habitat block delineation, it may mislead readers as to the actual configuration of habitat blocks (which should only include Federal land) in the “checker-board” BLM lands. The current maps shows these blocks as contiguous, and acreages being quoted for Option #2 to the public are based on this map. A truer depiction (both as a figure and acreage) should be provided to the public. We suspect that the difference between Option #1 and Option #2 would be smaller.

Pages 137-139, Appendix E, Number 3. Eighty year-old stands in the East Cascades province do not possess the structure needed for nesting. Forests should be asked to analyze the data specific to our nest sites to help determine a more appropriate metric to use.

Pages 137-139, Appendix E, Number 7. This method does not acknowledge the likely occurrence of large uncharacteristic wildfires with large expanses of stand replacement on the landscape. What if entire home ranges are burned? If the area is not reforested with desired tree species (because recovery would take >10 years), actual recovery of the stands may take decades due to successional pathways (e.g. shrub fields, white fir dominates, etc.). Most trees killed by fire will be down in 30-50 years, and if the majority of the home range is stand replacement, the potential for re-burn exists further expanding the time gap until recovery is reached. In addition, risk reduction to remaining habitat should be factored in.

This method also implies that the area will again produce habitat and that all habitat produced is equally. Many areas burned in the B&B fire, for example, may have served as habitat prior to the fire but these conditions were a result of decades of fire suppression and white fir encroachment. In reality, given a more natural fire regime, these areas may never again produce habitat.

This method also does not take into account LRMP Standards and Guidelines, or seems to imply potentially overriding the existing guidelines for snag and log retention. This may have future implications for Forest Service NEPA documents.

Page 141, Appendix F, Bullet 1. Active owl sites are still present in the Designated Conservation Areas (DCA) mapped on the DES. However, much of the habitat in these DCAs was a result of decades of fire suppression and encroachment by white fir. This habitat is not sustainable and many of the forests in these DCAs have experienced high mortality from insects and disease and/or wildfire. Yet, these same areas are still identified as needed for spotted owl recovery in the current recovery plan.

Literature Cited

Courtney, S.P., J.A. Blakesley, R.E. Bigley, M.L. Cody, J.P. Dumbacher, R.C. Fleischer, A.B. Franklin, J.F. Franklin, R.J. Gutiérrez, J.M. Marzluff, and L.

- Sztukowski. 2004. Scientific evaluation of the status of the northern spotted owl. Sustainable Ecosystems Institute, Portland, Oregon.
- Davis, R., and J. Lint. 2005. Chapter 3: Habitat status and trend. Pages 21-82 in Lint, J., Tech. Coord. Northwest Forest Plan- The First 10 years (1994-2003): Status and trends of northern spotted owl populations and habitat. USDA Forest Service, Pacific Northwest Research Station, PNW-GTR-648.
- Gaines, W.L., R.A. Strand, and S.D. Piper. 1997. Effects of Hatchery Complex fires on northern spotted owls in the eastern Washington cascades. Proceedings-Fire Effects on Rare and Endangered Species and Habitats. Coeur d'Alene, Idaho.
- Lehmkuhl, J.F., M. Kennedy, E.D. Ford, P.H. Singleton, W.L. Gaines, and R.L. Lind. 2007. Seeing the forest for the fuel: Integrating ecological values and fuels management. Forest Ecology and Management 246:73-80.
- Lehmkuhl, J.F., K. Kistler, and J. Begley. 2006a. Bushy-tailed woodrat abundance in dry forests of eastern Washington. Journal of Mammalogy 87:371-379.
- Lehmkuhl, J.F., K. Kistler, Begley, J., and J. Boulanger. 2006b. Demography of northern flying squirrels inform ecosystem management of western interior forests. Ecological Applications 16:584-600.
- Lint, J. 2005. Chapter 2: Population status and trend. Pages 7-20 in Lint, J., Tech. Coord. Northwest Forest Plan - The First 10 years (1994-2003): Status and trends of northern spotted owl populations and habitat. USDA Forest Service, Pacific Northwest Research Station, PNW-GTR-648.
- Singleton, P., S. Graham, W. Gaines, and J. Lehmkuhl. 2005. Ecology of barred owls in fire-prone forests. Progress Report, USDA Forest Service, Wenatchee Forestry Sciences Lab, Wenatchee, Washington.